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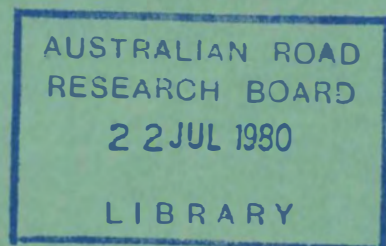


1979

PARLIAMENT OF TASMANIA

DEPARTMENT OF MAIN ROADS

REPORT FOR YEAR 1978-79



Presented to both Houses of Parliament by His Excellency's Command

By Authority:
T. J. HUGHES, Government Printer, Tasmania

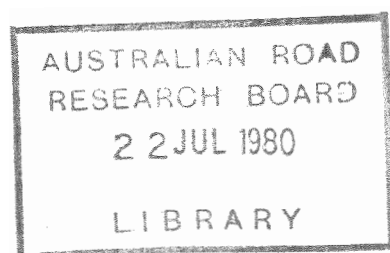


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DEPARTMENT OF MAIN ROADS

THIRD ANNUAL REPORT

For the year ended 30 June 1979

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DEPARTMENT OF MAIN ROADS

Director of Main Roads — G. E. C. MCKERCHER

Assistant Director — L. J. BAILY

Secretary — K. G. RASMUSSEN

PRINCIPAL OFFICERS — HEAD OFFICE

Assistant Secretary — R. F. READ

Chief Accountant — F. J. DRAKE

Principal Engineer, Design — C. R. WILLING

Principal Engineer, Construction — D. A. WHARMBY

Division Engineer, Road Design — W. D. COOMBS

Division Engineer, Road Construction — O. A. WILSON

Division Engineer, Bridges — I. A. GAGGIN

Division Engineer, Plant — F. N. LAKIN

PRINCIPAL OFFICERS — DISTRICTS

District Engineer, South-East, Derwent Park — M. G. LINTON

Executive Officer — G. S. GRIGGS

District Engineer, North-East, Launceston — P. A. MEYER

Executive Officer — R. A. PETERS

District Engineer, North-West, Ulverstone — J. H. DRISCOLL

Executive Officer — C. J. MORGAN

DEPARTMENT OF MAIN ROADS

ANNUAL REPORT FOR 1978-79

FOREWORD

1978-79 has been a year of substantial achievement in the Department's fields of responsibility.

Planning and design continued at a fairly satisfactory rate during the year, despite the limitations placed on the Department by the Government's policy of zero growth and the slow processes of staff replacement.

A major Environmental Impact Study of the Burnie Highway System was commenced and a joint Commonwealth/State survey of community attitudes to the alternative routes for the controversial Deloraine By-pass route was practically completed. Good progress was also made during the year on the Derwent Region Transportation Study and it is anticipated that the final report will be published before the end of 1979.

Improvement of National Highways continued at a satisfactory rate, with major works being construction of the Ulverstone By-pass and reconstruction of the Midland Highway between Mangalore and Oatlands.

Over the last ten years there has been a significant reduction in travel times between Hobart, Launceston and Burnie and this will continue as future sections of the Midland and Bass Highways are upgraded.

Works on urban and rural arterial roads progressed satisfactorily during the year, but there is a need for a substantial increase in funds to achieve the programs for warranted improvements to these roads.

An analysis of funds available for road and bridge construction and maintenance over the past decade shows a substantial decline in the real value of these funds.

Commonwealth grants for roads, in 1978-79 values, have declined from \$27.3 m in 1969-70 to an all time low of \$23 m in 1979-80. This decline of over \$4 m has obviously had a substantial effect on the works programs of the Department.

The State Government has maintained the real value of funds provided by State motor taxation revenue at a fairly constant level, the comparative amounts being \$14.8 m in 1969-70 and \$15.2 m estimated for 1979-80. Some of the shortfall in the total of Commonwealth grants and State motor taxation revenues has been made good by increasing the State Loan Funds allocated for roads. However, the total of all funds, in 1978-79 values, has fallen from \$45.4 m in 1969-70 to an estimated \$42.3 m in 1979-80.

FINANCE

General

The Department has maintained for a number of years an annual Road Construction Cost Index which, it is believed, reflects with reasonable accuracy the cost increases applying to the Government road construction industry in Tasmania. Other State Road Authorities also produce cost indices which show a similar pattern of cost rises.

The index developed by the Department, together with the comparable Consumer Price Index, for the previous ten years is set out below.

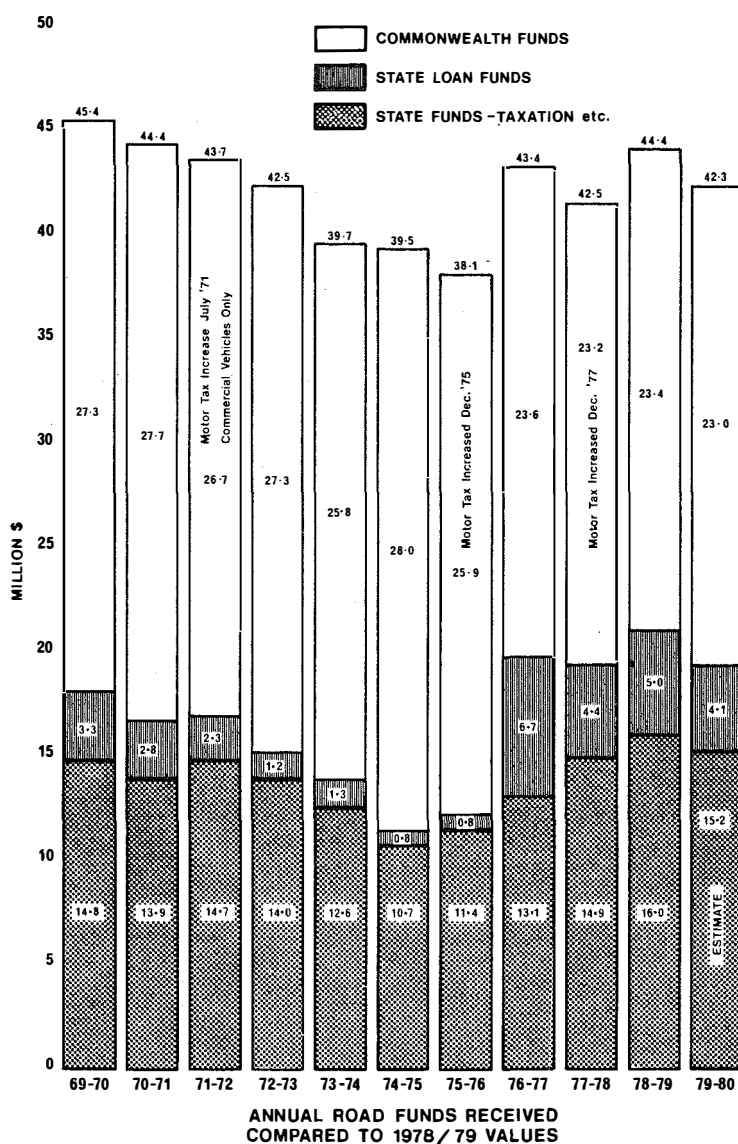
<i>Date 30 June</i>	<i>D.M.R. Road Index</i>	<i>Consumer Price Index</i>
1970	100.0	100.0
1971	110.8	104.6
1972	122.0	111.3
1973	133.8	119.3
1974	162.4	136.8
1975	199.3	158.0
1976	233.6	183.0
1977	263.5	206.8
1978	283.3	224.0
1979	300.6	243.6

Inflation affects different sectors of the community in different degrees and road costs, as evidenced by this index, have increased by 200 per cent since 1970, whereas over the same period the Consumer Price Index has increased by only 144 per cent.

The rate of inflation affecting the operations of the Department of Main Roads is currently estimated to be in excess of 9 per cent per annum. Commonwealth Grants available to the Department for road purposes are indexed at 7.48 per cent for 1979-80 and there has been a reduction in Loan Funds from State sources.

In addition to the financial disadvantages revealed by the road index, there has been a fall in the real value of funds available to the Department in 1979-80 and this is illustrated by the following histogram. The funds available to the Department over an eleven year period have been adjusted to 1978-79 values and clearly show the reduction in real terms of moneys made available for road purposes.

The Department therefore has had no alternative but to reduce its road improvement program and defer some warranted roadworks of fairly high priority.



Motor Taxation

Receipts from motor taxation were \$14 387 965, an increase of 16 per cent over the preceding year due mainly to the full impact of the increase in taxation rates effective from December 1977.

Miscellaneous Receipts

Receipts from this source were \$774 810 compared with \$1 460 030 in 1977-78 and includes tolls received from the woodchip industry as well as reimbursement from the Commonwealth for transport planning and research expenditure.

Commonwealth Grants for Roads

For the three financial years commencing 1 July 1977, the Commonwealth Government provided finance under the States Grants (Roads) Act 1977 to Tasmania comprising of a basic grant of \$65 100 000 at the rate of \$21 700 000 per year.

When the legislation was introduced in the Federal Parliament, the Minister for Transport stated that the grants allocated for 1978-79 and 1979-80 would be indexed so as to ensure that the value of the grants was maintained at the 1977-78 level in real terms.

The allocations for the years 1977-78, 1978-79 and 1979-80 are as follows:—

	1977-78 \$ m	1978-79 \$ m	1979-80 \$ m
National Roads — Construction	7.90	8.449	9.081
National Roads — Maintenance	.90	.962	1.034
National Commerce Roads — Construction	.70	.749	.805
Rural Arterial Roads — Construction	3.00	3.208	3.448
Rural Local Roads — Construction and Maintenance	4.90	5.241	5.633
Urban Arterial Roads — Construction	2.70	2.888	3.104
Urban Local Roads — Construction	1.00	1.069	1.149
Minor Improvements for Traffic Engineering and Road Safety	.60	.642	.690
TOTALS	21.70	23.208	24.944

In order to qualify for the above grants, Tasmania was required to expend on roadworks from its own resources a quota of \$12.3 m in 1977-78 and \$13.155 m in 1978-79. In 1979-80 the quota will be \$14.139 m

All financial assistance payable under the States Grants (Roads) Act 1977 was received in 1978-79.

Loan Funds

Loan funds provided to the Department for roads, bridges and other works totalled \$5 213 621, an increase of 19 per cent on the previous year.

Funds Provided by Other Departments and Authorities

Payments received by the Department for works carried out for other departments and authorities amounted to \$1 784 579 compared with \$1 523 986 in 1977-78. The increase was due mainly to the Department undertaking major roadworks for the Hydro-Electric Commission on the Pieman River Power Development Scheme and other miscellaneous works for the Department of Housing and Construction.

Statement of Source and Application of Funds

Funds provided during 1978-79 from all sources amounted to \$48 214 552, an increase of 9.3 per cent over the previous year as shown in the statement below:—

Sources of Funds

1977-78		1978-79	
\$		\$	\$
	State Highways Trust Fund—		
14 839 033	(a) State Motor Taxation, Public Vehicle Fees and Miscellaneous Receipts	16 191 891	
21 700 000	(b) Commonwealth Grants for Roads	23 208 000	
			39 399 891
4 383 409	Loan Funds		5 213 621
602 814	Special Commonwealth Funds		49 754
1 060 851	Consolidated Revenue Fund		1 189 330
1 523 986	Funds Provided by other Departments and Authorities		1 784 579
	Net Decrease in Funds carried forward—		
	Balance 30.6.78	1 069 488	
	Less Balance 30.6.79	492 111	
			577 377
\$44 110 093			\$48 214 552

Application of Funds

1977-78		1978-79	
\$		\$	\$
	State Highways Trust Fund—		
29 751 363	Roadworks	33 439 144	
6 455 448	Bridgeworks	6 519 595	
73 367	Ferries	17 656	
74	Second Hobart Bridge	873	
258 781	Net increase in funds carried forward from previous year		
			39 977 268
	Loan Funds—		
3 069 387	Roadworks	3 906 552	
1 050 613	Bridges	1 122 448	
199 982	Jetties and Facilities for Fishermen	106 477	
63 427	Launceston Flood Protection	78 144	
			5 213 621
	Special Commonwealth Funds—		
96 766	Tasman Bridge Disaster Works		
506 048	Second Hobart Bridge	49 754	
			49 754
	Consolidated Revenue Fund—		
287 170	Departmental Administration	299 628	
92 752	Workers' Compensation (Other Departments)	164 935	
81 707	Repairs to Jetties	124 944	
474 895	Contributions and Grants for Sundry Buildings and Facilities and Miscellaneous Expenses	459 901	
124 327	Other Miscellaneous Expenses Including Recreation Ground Subsidies	139 922	
			1 189 330
1 523 986	Works for Other Departments and Authorities		1 784 579
\$44 110 093	TOTAL		\$48 214 552

State Highways Trust Fund

The State Highways Trust Fund Account is established under the Roads and Jetties Act 1935. The fund is credited with the following moneys:—

- (1) All grants made by the Commonwealth under the States Grants (Roads) Act 1977.
- (2) Funds received by the Department from grants made to the State by the Commonwealth under the Transport Planning and Research (Financial Assistance) Act 1977.
- (3) All State motor taxation.
- (4) The net amount of registration fees for motor vehicles, licence fees for drivers and renewal and transfer fees.
- (5) Public vehicle fees imposed under section 20A of the Traffic Act 1925.
- (6) Revenue from jetties.
- (7) Contributions by Municipal Councils for the maintenance of classified roads.
- (8) Receipts from sale of stores (other than plant).
- (9) Any moneys provided by Parliament for the purposes of the fund.
- (10) Such other moneys (if any) as the Treasurer may direct.

The fund is debited with the following:—

- (a) Expenses incurred in the construction, reconstruction and maintenance of State highways and other classified roads.
- (b) Costs incurred in the maintenance of Council roads which the Minister has agreed to subsidise.
- (c) Contributions to the Bruny, Flinders and King Island Municipalities of portion of the Motor Tax collected in those Municipalities.
- (d) All expenditure incurred under the provisions of the States Grants (Roads) Act 1977 and the Transport Planning and Research (Financial Assistance) Act 1977.
- (e) Costs of stores and materials (other than plant).
- (f) Repair and renewal of bridges on Council roads.

A summarised statement of receipts and payments for the State Highways Trust Fund Account for 1978-79 is set out below, together with the corresponding figures for 1977-78:—

State Highways Trust Fund 1978-79

1977-78 \$		Receipts	1978-79 \$
810 633	Balance brought forward	.....	1 069 488
21 700 000	Commonwealth Grants for roads	.....	23 208 000
12 383 624	Motor Taxation	.....	14 387 964
995 379	Public Vehicle Fees	.....	1 029 117
1 460 030	Miscellaneous Receipts	.....	774 810
37 349 666	TOTAL	.....	40 469 379
		Payments	
8 392 263	National Highways	.....	9 177 953
969 204	National Commerce Roads	.....	865 017
9 639 855	Rural Arterial Roads	.....	11 769 806
7 124 882	Rural Local Roads	.....	7 780 218
7 334 659	Urban Arterial Roads	.....	7 570 943
1 566 905	Urban Local Roads	.....	1 343 689
556 222	MITERS	.....	762 602
696 188	Transport Planning and Research	.....	706 167
74	Second Derwent Crossing Suspense Account	.....	873
1 069 414	Balance carried forward	.....	492 111
37 349 666	TOTAL	.....	40 469 379

Loan Fund Expenditure

The loan funds of \$5 213 621, allocated to the Department for roads and bridges and other works, were applied as follows:—

1977-78		1978-79
\$		\$
4 120 000	Roads and Bridges	4 700 000
263 409	Other Works	513 621
4 383 409	TOTAL	5 213 621

A schedule of expenditure items and amounts is shown in Annexure A. It should be noted that the loan fund amounts for the road and bridge items listed in the schedule were in all cases supplemented by funds from the State Highways Trust Fund.

Financial Assistance to Local Government Authorities

Under the provisions of the States Grants (Roads) Act 1977 and the Roads and Jetties Act 1935 the Department made direct grants to local government authorities for construction and/or maintenance of roads controlled by Councils. The direct grants to Councils totalled \$5 492 145, an increase of 8.1 per cent over the amount of the direct grants provided in 1977-78.

In addition to the direct grants, the Department also provided indirect financial assistance to local government authorities. Under the provisions of the Roads and Jetties Act the Department financed the repair and renewal of bridges on Council roads and carried out these bridgeworks. The Department maintained those Council roads which have been declared as subsidised roads and provided funds to the National Parks and Wildlife Service for work on Council roads. The indirect financial assistance to Councils totalled \$1 451 018, an increase of 15 per cent over the preceding year.

The total of direct grants and indirect financial assistance to Councils was \$6 943 163, an increase of 9.5 per cent over 1977-78. The amounts of direct grants and indirect financial assistance to Councils for the various categories of roads and works are shown in Annexure B.

PLANNING AND DESIGN

Burnie Highway Environmental Impact Study (BHEIS)

This study commenced in March 1979 and is reviewing the previously proposed Stage B Expressway scheme and any feasible alternatives. (Stage A of the expressway was opened to traffic in March 1977.)

P. G. Pak-Poy and Associates have been retained to provide the Study Manager; Departmental officers make up the remainder of the Study Team. A Technical Committee and Local Advisory Committee have been formed to assist and review the work of the Study Team.

At 30 June 1979, collection of background material and problem identification were virtually complete. A traffic survey consisting of a road side interview study, a number plate survey and a vehicle classification and traffic counting survey had also been completed. This latter work involved the temporary employment of some thirty local residents in addition to Departmental staff and the work was also supported by excellent co-operation and assistance from the local traffic police and staff of the Burnie Council. Some 27 000 interviews were conducted between 7 a.m. and 6 p.m. over a two week period. At the end of the year a start had been made on processing the various data which had been collected. The Study is programmed for completion at the end of October 1979.

Derwent Region Transportation Study

This Study commenced in 1977-78 to review the traffic, road and transport situation in the Hobart Metropolitan Area and its immediate environs and to recommend improvements for the next decade.

The Study was managed by representatives of the Department and other State and local government authorities, in consultation with community groups and others interested in, or affected by, changes in the transport system.

Following initial region-wide investigations of public and private transport issues, detailed local studies were carried out in the cities of Hobart and Glenorchy and in the Municipalities of Clarence, Kingborough, Brighton, Huon, New Norfolk, Richmond and Sorell. These investigations were concerned with finding solutions to local traffic, road and transport problems, often identified through discussion with local people, including aldermen and councillors.

In December 1978, an exhibition of alternative future road projects in all parts of the metropolitan area was organised to enable the public to comment on the work of the DRTS Study Team. The exhibition continued until the end of February and was viewed by many hundreds of interested people. Comments from these people greatly assisted the Study Team in later evaluation of the various schemes.

The Study was also concerned with public transport in the region. A comprehensive analysis of all forms of public transport was undertaken in conjunction with the Metropolitan Transport Trust and with the assistance of various private operators. As a result of this analysis, wide-ranging suggestions and recommendations about improving the quality and efficiency of public transport services can be made.

As well as such suggestions, the Study Report will contain recommendations about roadworks required in the region over the next decade, and a works program indicating how these projects might be completed with the limited funds now available for roadworks.

It is expected that the final report will be available before December 1979.

Project Planning

The Department has maintained its policy of close liaison with other Government Departments and Planning Authorities in relation both to new highway projects and to proposed developments which could have a significant impact on the existing or proposed highway system. On a State-wide basis consultation is with the Town and Country Planning Commission, at regional level with the Southern Metropolitan Master Planning Authority, the Tamar Regional Master Planning Authority and the North-West Master Planning Authority and at local level with the appropriate Council. The more important projects are listed below:—

Glen Dhu Housing and Re-development Planning Study

The Launceston Transportation Revision 1976-77 recognised the significant social and environmental problems associated with the proposal to construct a new highway — the Southern Outlet — through the mixed residential/commercial Glen Dhu area. The Revision Report recommended that a housing and re-development planning study of the area be undertaken by the Launceston City Council, the Department of Housing and Construction and the Department of Main Roads to determine whether the construction of the new highway was preferable to the other option of widening Wellington Street.

This problem is currently being investigated by a working group with members from the above organisations and a Government Valuer. Several different road and re-development options have been identified and because of the social issues involved, some community participation will be required before a final decision can be taken.

Launceston Bikeway

As instructed by State Cabinet, the Department has set up a working group with members from the Launceston City Council, the Transport Commission and Pedal Power to investigate and determine the most suitable alignment for the experimental bikeway project recommended in the 1976-77 Launceston Transportation Revision. Part of the bikeway from Royal Park to Mowbray is substantially complete and should be open by October 1979. This bikeway is being installed on a trial basis and to assess the influence of the facility on bicycle usage on a before and after basis. It will therefore be the subject of observation after completion to determine its effectiveness.

Launceston Southern Outlet

The Department's 'preferred' proposal for the section from Mount Pleasant to Wellington Street has been publicly displayed and numerous comments received. These will be considered along with all other relevant factors before the final decision on the route is taken.

The most complex problem to be resolved is the junction treatment to be adopted between the Southern Outlet and the Kings Meadows and Prospect Connectors. Many alternatives ranging from relatively simple at-grade solutions to more complex grade separation schemes are being investigated. Approval by the Commonwealth Minister for Transport to the final scheme will be required.

Bass Highway — Devonport to Latrobe

Following completion in 1977 of the highway planning report covering the Devonport-Latrobe section of the Bass Highway, consultation is continuing with the Latrobe Council to identify and reserve the land required for the long term route of the by-pass in order to incorporate it in the town's statutory plan and protect the land from development. The proposed dual carriageway by-pass is likely to be very costly and is regarded as a long term project.

Preliminary investigations are being carried out with a view to an interim upgrading of the existing highway by widening and provision of climbing lands to cater for traffic in the short term. This work will include improvements to the existing Moriary Road intersection at Latrobe which has in recent years produced a bad accident record. These latter investigations are aimed at these interim improvements being initiated in 1979-80.

Deloraine By-pass

In an effort to reach finality on the route to be adopted for this controversial project, the Commonwealth Department of Transport and the Department took part in a joint study of two alternative routes. Details of the two routes were presented to the local community in a public display and via a postal questionnaire survey of 1 500 residents of the region around Deloraine. A report is now being prepared describing the community attitude to the two routes. A final decision is anticipated later in 1979.

Prospect By-pass

The Department has identified a corridor for this proposal which is currently being protected through the planning powers of the Westbury Council. This particular project was regarded as important in the National Highway Report which recommended that its construction should follow the completion of the Prospect Connector.

Right-of-Way Control

The principal field of activity relates to the administration and protection of present and future proclaimed State road reservations. This includes the control of works and installations by other service authorities and private persons within the road reservations. Some control is also exercised by the Department through the Town and Country Planning Commission over adjoining property developments and the subdivision of land. 266 kilometres of major State roads have been proclaimed 'limited access roads' and an

additional 38 kilometres are in the process of being proclaimed as at 30 June. These proclamations under the provisions of Section 52A of the Roads and Jetties Act 1935 provide the Department with the necessary authority to limit access to the major highways, and this is an important factor in reducing accidents involving turning movements and increasing the safety and level of service of these major roads.

Second Hobart Bridge Road Approach Schemes

During the year the work of the joint Commonwealth/State Committee on Second Hobart Bridge completed the investigation and design phase of the project and submitted a report to the Prime Minister of Australia and the Premier. As at 30 June 1979, no decision had been taken to proceed with construction of the bridge. Departmental staff were engaged in the planning of the various alternative road approach schemes considered by the Committee and will continue to be involved in the preliminary and final design of the road approaches for the scheme finally selected.

Road Design

BROOKER HIGHWAY, HOBART

The main activity was associated with the Berriedale Interchange. Since the first stage of this interchange was opened to traffic in 1977 the Rosetta junction has had a poor accident record. Because of this and other problems identified and drawn to its attention, the Department authorised an independent review of the proposed ultimate lay-out. This review recommended several modifications and these were adopted after consultations with the Glenorchy City Council. The most significant alterations were the retention of Berriedale Road as a two-way connection under the Brooker Highway, the re-alignment of the off-ramp to Berriedale Road, the associated re-alignment of Radcliffe Crescent and improvements at the Rosetta Junction.

High priority was given to the necessary design alterations to enable implementation of the improvements at the critical areas with minimum delay.

MIDLAND HIGHWAY (NATIONAL HIGHWAY)

Kempton By-pass

Design was completed and this 3.5 km section of the National Highway was constructed during the year, culminating in the by-pass opening to traffic on 2 July 1979.

Tedworth to Spring Hill Summit

Design was also completed for this section of difficult sideling terrain.

Spring Hill to Jordon River

The line of the Jericho Deviation was approved and all detailed design was completed, except for minor drainage.

Jordon River to Stonor Road

Detailed design is proceeding in order to keep ahead of the northward moving construction on this last section of the Midland Highway before reaching Oatlands.

EAST TAMAR OUTLET, LAUNCESTON

The first major stage of the Outlet from Charles Street Bridge to Mowbray was officially opened on 9 April 1979 by the Minister for Main Roads and Transport.

A substantial length of this section crosses the River Tamar mud flats and the settlement problems associated with this material was a major factor in both design and construction of the road. Because of the location alongside the river, special attention has been given to the landscape design to create a park-like setting for the highway in harmony with the shoreline and existing flora.

Design work for the second stage from Mowbray to Newnham is virtually complete. In addition to problems similar to those encountered in the first stage, the requirements of the adjoining major education institutions — the Launceston Church Grammar School, the Tasmanian College of Advanced Education, the Australian Maritime College and the Alanvale College — have influenced the design. Two pedestrian overpasses are being provided to maintain access to the river for both sporting and educational activities and provision has also been made for vehicular access to the tertiary educational complex if required in the future.

BASS HIGHWAY — PENGUIN TO BURNIE

The results of the Commonwealth Bureau of Transport Economics' Corridor Study for the above section of the National Highway were published during the year. They confirmed retention of the existing highway, suitably upgraded, as the National Highway in preference to construction of a new inland route.

Design work has therefore commenced on that section of the existing highway between Chasm Creek and Old Surrey Road, a section rated high in importance by the National Highway Report. This section will be widened to dual carriageway standard and will include a major new bridge over the Emu River. An important design constraint will be the maintenance of the effluent lines from the Australian Pulp and Paper Mills' plant which are currently carried on separate structures on the seaward side of the existing Emu River Bridge.

ARTHUR HIGHWAY — SORELL TO FORCETT

A detailed investigation of several alternatives of road alignment and design standards was undertaken to arrive at the most cost effective design, in revising the 1974 design. Detailed design was then completed for 6 km of the route in readiness for construction in 1979-80.

OTHER ROAD DESIGN PROJECTS

In addition to the above projects design has continued on the following sections of road:—

- Huon Highway between Geeveston and Huonville
- Tasman Highway between Scottsdale and Ringarooma
- Waratah Highway between Somerset and West Takone Road
- Nubeena Secondary Road between Nubeena and Port Arthur
- Hastings Caves Tourist Road between Huon Highway and Lune River Road.

Other major projects on which some design and investigation have been carried out during the year include the Devonport Connector for the future Don Interchange, a deviation of the Arthur Highway at Port Arthur for a by-pass of the historic town to the requirements of the National Parks and Wildlife Service and the Strahan to Zeehan Road.

In addition, over fifty minor projects, including those on the MITERS category, have been investigated and in many cases detailed designs have been prepared.

Bridge Design

During the year designs for sixteen bridges, three footbridges and nine culverts or stock underpasses were completed. Detailed design investigations were made for eleven proposed projects. Design is in hand for ten new structures.

The more important designs completed were—

- Box Hill Road Overpass on the Northern Outlet Road at Claremont
- Alanvale Road Underpass on the East Tamar Outlet Road
- Forth Road Underpass on the Ulverstone By-pass Road
- Tied Steel Sheet Piling Retaining Wall at Stephenson's Bend on the East Tamar Outlet Road
- Jordon River Bridge on the Jericho Deviation of the Midlands Highway



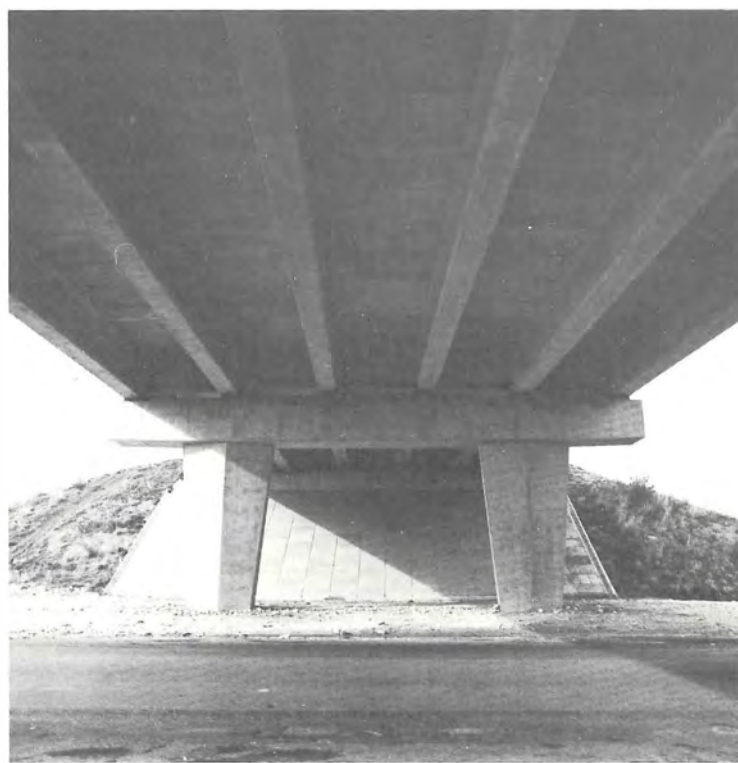
Ulverstone By-pass Bass Highway — view eastwards.

(Photo: John Hays)



Two views of Lovett Street underpass during construction of the Ulverstone By-pass.

(Photos: John Hays)





Midland Highway reconstruction at top of Spring Hill.

(Photo: Tas. Film Corp.)



Reconstruction near old guard house, approaching Spring Hill, Midland Highway.

(Photo: Tas. Film Corp.)

Work completed — south of Lovely Banks, Midland Highway.

(Photo: Tas. Film Corp.)





East Tamar Outlet, Launceston looking south from Mowbray connector.

(Photo: Tas. Film Corp.)

View northwards of East Tamar Outlet from Charles Street bridge towards Mowbray and Alanvale.

(Photo: Tas. Film Corp.)



Over-dimensional vehicle operating on Tasman Highway near Hobart.

(Photo: Tas. Film Corp.)





Tasman Highway at Hobart, looking towards Tasman Bridge with Rose Bay High School pedestrian overpass in foreground.
(Photo: Tas. Film Corp.)

Roadside interviewing as part of the Burnie Highway environmental impact study.
(Photo: D.M.R.)



The reverse view, looking from the pedestrian overpass towards the Rosny Hill interchange structure with the ultimate line of the Tasman Highway passing under.
(Photo: Tas. Film Corp.)



The more important designs in hand, but not completed were—

- Hilton Road Overpass on the Northern Outlet Road at Claremont
- Blacksnake Lane Underpass on the Northern Outlet Road at Granton
- Mountain River Bridge on the Ranelagh Secondary Road

Preliminary investigations of future projects include grade separation structures at Prospect, Glen Dhu and Melbourne Streets on the proposed Southern Outlet Road at Launceston and duplication of the Bass Highway at Burnie, involving new structures over the Emu River, Chasm Creek and the railway at Wivenhoe.

Investigations were undertaken to evaluate means by which the live load carrying capacity of the Leven River Bridge on the Bass Highway at Ulverstone and the Derwent River Bridge at Bridgewater could be increased.

Traffic Services

Traffic Counting

The State-wide traffic counting program continued throughout the year. The results of the counts at the various stations were published in a Departmental report titled 'Traffic Volumes Tasmania 1978'. This publication has proved very popular and will continue to be published annually. During the year a computer terminal was installed in the traffic section of the Department in order to process the traffic counting data more efficiently.

In addition to the normal traffic counts over 100 special traffic counts were carried out covering such things as turning movement counts at intersections, vehicle classification counts, pedestrian movement counts and nine special area wide traffic counting surveys. This information was required in connection with the planning and design of road improvements.

Road Direction Signing

During the year the Government accepted a recommendation that the Department be authorised to implement an improved road direction signing system on both classified and unclassified roads in the State to assist tourists. The proposed new signing will be in accordance with Australian Standard AS 1742 and a route numbering system similar to that used in the United Kingdom will be introduced. The system will be administered by the Department with the advice and assistance of an Advisory Council consisting of representatives from Government and non-Government instrumentalities which have an interest in tourism and road traffic.

The signing of service and tourist facilities was continued during the year and many additional service signs were erected. In addition a service and tourist signing brochure was compiled and distributed through various Government and tourist outlets.

Vehicle Permits and Enforcement of Axle Load Limits

Over 3 300 permits were issued for the movement of overweight and/or over dimension vehicles during the year. This is an increase of some 300 permits over 1977-78. Policing of the regulations limiting axle loads on vehicle weights and dimensions was carried out on behalf of the Department by the Transport Commission in conjunction with the policing of the general transport regulations. 594 convictions were recorded in the Courts for breaches of the regulations. The amount of fines imposed totalled \$22 148 and the amount of the special penalties imposed totalled \$44 266. The costs incurred by the Department in policing the regulations were—

	\$
Contribution to Transport Commission	70 000-00
Provision of Weighing Facilities	4 688-92
Maintenance of Weighing Facilities	12 130-79
Cost of twenty-six new Electronic Loadometers and ancillary equipment	76 920-00
TOTAL EXPENDITURE	\$163 739-71

Hydraulics

Continuous hydraulic survey was undertaken on a total length of approximately 50 km of road prior to design for new work or reconstruction including sections of the Midland, Tasman, Channel and East Tamar Highways and the Blessington Main Road.

Detailed hydraulic investigation and drainage design was carried out on sections of major highways as follows: Alanvale Connector, Forth Interchange, Hobart Eastern Outlet Road, Northern Outlet Road (Euston Street — Dooley's Creek), Marine Terrace, Burnie and Goldie Street, Smithton.

One hundred and six separate hydraulic investigations were made for bridges, culverts and road drainage. Included were works on the Bass, Midland and East Tamar Highways and on the Esk Main Road; also included were comprehensive hydraulic investigations for major bridges over the Jordan River at Jericho and on the Elderslie Main Road and over the Clyde River at Bothwell.

General hydraulic investigation and design was undertaken for forty-seven different projects, including subdivision drainage onto roads, drainage of school and other building areas, flooding, erosion control, water supply and sewerage. A special investigation was undertaken into the general flood risk and consequences at the Risdon Cove Historic Site for the National Parks and Wildlife Service.

A handbook of road drainage practice based on previous lengthy investigation and design was produced. This is a comprehensive work which sets out provisional recommendations for road drainage.

A special investigation was commenced into the rationalising of design flood frequency and acceptable flood risk on the State's roads with the object of achieving future economies in bridgework and general drainage.

Launceston Flood Protection

The Department continued to provide engineering liaison and a check on the expenditure of State funds provided for capital works and maintenance of the flood protection system being carried out by the Launceston City Council in accordance with the agreement with the State. Works included the topping up of levee banks and reconstruction of a drainage outfall in the Scottsdale levee at Churchill Park. Funds provided to the Council for capital works amounted to \$78 143.

Marine Board Works

Steel components for a slipway at Currie under construction by the Marine Board of King Island were inspected. A report was subsequently forwarded to the Treasury concerning the value of the work. A pro-rata payment out of a \$15 000 Government grant was recommended.

The following works were investigated and reported upon for the Transport Commission in accordance with section 73 of the Marine Act 1976: —

- (a) Marine Board of Burnie — The provision of a gantry container crane at the new Jones Pier South, estimated cost \$1.2 million;
- (b) Marine Board of Devonport — A proposed 5 700 m³ cold store at Quoiba, estimated cost \$325 000.

CONSTRUCTION, MAINTENANCE AND OPERATIONS

Works Completed

Roadworks completed and opened to traffic during the year included—

- Duplication of Marine Terrace, Burnie from Reeve Street to the Emu River
- The section of East Tamar Outlet Road from Launceston City to Invermay Road at Mowbray
- The deviation of Midland Highway in the vicinity of Kempton and including the Kempton Bypass

Access Road to Stringer Creek Dam

Reconstruction of 44 km of road to give access from Zeehan to the dam site at Stringer Creek was completed in December 1978 with funds provided by the Hydro-Electric Commission. It is now being used to transport heavy equipment, materials and personnel to the dam site.

Channel Highway

Reconstruction of the 4.5 km section between Margate and Snug was completed, except for a short length of temporary seal that will be covered in the next year.

Lilydale Main Road

Reconstruction and realignment between Rocherlea and Prossers Forest Road was completed during the year.

Preston Main Road

Reconstruction and sealing of the 2 km length between Ulverstone and Gawler was completed, except for a short length at Masons Creek which will be sealed during the next year.

Works in Progress*Ulverstone By-pass*

The main concentration of work was on the eastern side of the Leven River between Castra Main Road and Forth Road where earthworks were substantially completed. Some pavement work has been done between Preston Main Road and Forth Road. On the western end of the by-pass, roadworks are almost complete and landscaping of the interchange area is finished. The 7.2 km by-pass is programed to be opened to traffic early in 1981.

East Tamar Outlet Road

Drainage and earthworks continued on the section north of Mowbray Connector and at the end of the year, work was continuous to Alanvale Road and almost to the junction with the East Tamar Highway. This section is scheduled for completion by December 1980.

Hobart Eastern Outlet Road

Drainage and earthworks were substantially completed between Rosny Hill and Dampier Street and were continuing on the section to Mornington to join the completed road over Tunnel Hill. Some pavement material was placed during the year. Completion of the Rosny Hill overpass bridge allowed the opening of the east-bound lane for traffic towards Bellerive. The entire 3.3 km road from Rosny Hill to Mornington is programmed for completion by March 1981.

Hobart Northern Outlet Road

The second carriageway was completed to a point north of Berriedale Road to give a continuous dual carriageway outlet from Hobart. Excavation was done at Box Hill Road to sever the town street and allow construction of the overpass bridge to carry residential traffic over the Outlet Road. Some filling was placed in the approaches to Allunga Road underpass bridge.

Midland Highway

Reconstruction of the 36.4 km section between Mangalore and Oatlands continued throughout the year with work proceeding from Lovely Banks to Spring Hill. Earthworks were substantially completed to the point where the new route crosses the existing road at the guard house near Tedworth. A deviation at the northern side of Spring Hill was completed to remove through traffic from the site of a deep cutting at the top of the hill.

Strahan-Zeehan Road

Work continued on this 42 km link to convert the old railway formation to a roadway. Of the two major deviations from the railway route, the Professor Deviation was completed and earthworks for the Henty Deviation were well in hand by the end of the year.

Huon Highway

Work continued on the section from Geeveston to Franklin and was completed as far as Back Road junction, a distance of 3.5 km from Geeveston. Work was in progress towards Shipwrights Point at the end of the year.

Tasman Highway

North of Triabunna, reconstruction and sealing was complete over 1.4 km and earthworks and pavement was in progress on a further 4 km East of Scottsdale, towards Kamona, a further 3.4 km was reconstructed and sealed and a gravel pavement was placed over 2.4 km for sealing in the following year. South of Wardlaws Creek the 2.6 km section, which had been widened the previous year, was finished with an asphalt overlay. Drainage works and widening of the pavement were continued over the next 6.9 km.

Waratah Highway

Work progressed south of Village Lane, with 6 km being reconstructed and sealed and 1 km having a gravel surface to be sealed in the following year. The section in Yolla, 0.8 km long, reconstructed during the previous year, was completed and sealed.

Blessington Main Road

Reconstruction of the urban section continued with sealing to Abels Hill Road and a temporary seal to Hillary Street.

Nubeena Secondary Road

Earthworks between Nubeena and Port Arthur, a distance of 9.4 km, were virtually completed during the year. Pavement work was continuing and 1.3 km at Nubeena end was sealed.

Storeys Creek Secondary Road

Reconstruction was completed to the gravel pavement stage between 6 km and 16 km from Avoca and a winter seal was applied to the first 2.9 km.

Lyell Highway

Re-alignment of a short section at Plenty, where the road passes between the cliffs and the Derwent River, was started during the year. Earthworks and part of the pavement were completed by June.

Elderslie Main Road

The section from Willowbrook to Broadmarsh, a distance of 7.35 km, was completed during the year.

Grass Tree Hill Secondary Road

Reconstruction continued from Risdon Vale towards Richmond. By the end of the year reconstruction had been completed almost to the top of Grass Tree Hill and a temporary seal had been placed on most of this work. An asphalt wearing surface will be placed during the next summer.

Advanced Programing for Construction

National Highway Study

A working group, with members from appropriate Divisions within the Department and a representative from the Commonwealth Department of Transport, was set up to study needs and priorities for projects on the National Highway System and to use the conclusions from this study, with the budget constraints and other considerations, to formulate two five year construction programs covering the period 1979-80 to 1988-89. The working group's report has been issued to senior Departmental officers as a guide to future planning and copies have been forwarded to the Commonwealth Department of Transport for information, discussion and assistance in considering programs for construction in future years.

Bridge Construction

The following bridgeworks were completed during the year: —

<i>Name</i>	<i>Road</i>	<i>Cost</i>
		\$
Rosny Hill Overpass	Hobart Eastern Outlet	536 227
Jordan River Bridge	Lake Highway	478 041
South Road Underpass	Ulverstone By-pass	386 060
North George River	Tasman Highway	322 574
Little Henty River Bridge	Zeehan Highway	182 447
Newnham Creek Culvert	East Tamar Outlet	178 784
Rose Bay High School Footbridge	Hobart Eastern Outlet	174 783
Kermadie River Bridge	Arve Secondary Road	130 648
Snug River Flood Opening	Channel Highway	116 518
Grange Road Underpass	Midland Highway	78 078
Scamander River Bridge Walkway	Tasman Highway	66 401
Sandhill Stock Underpass	Midland Highway	37 879
Wrights Road Pedestrian Underpass	Ulverstone By-pass	34 693

Tasman Bridge

As this structure still remains under the control of the Joint Tasman Bridge Restoration Commission, the responsibility of the Department has essentially been limited to operation of the traffic control facilities and routine maintenance of the road pavement. However, with the bridge inspection and maintenance gantry now being operational, it is expected that following a detailed examination of the restoration and widening works and subsequent rectification of minor defects, the bridge will be taken over by the Department in the latter part of 1979.

Experimental work in development of techniques for the detection of ungrouted ducts to prestressing tendons, which was being carried out in conjunction with the Australian Road Research Board, has been terminated. This was the result of evidence provided in a study by the Broken Hill Proprietary Company which concluded that the continuing presence of ungrouted ducts was not expected to produce any significant deterioration in the tendons or other detrimental effects.

Following the re-appearance of signs indicating corrosion of reinforcement in some of the columns of the western approaches, the Department's Consultants have been instructed to investigate the causes and recommend appropriate remedial work.

Batman Bridge

The exacting task of detailed inspection and maintenance of the stay cables commenced during the year and despite difficulties experienced due to equipment malfunction and inclement weather, the six forestays of the bridge and all lower cable anchorages were inspected. All cables were found to be in good condition. Inspection and painting of the A-frame and completion of the backstay work will be carried out in the forthcoming year.

Painting of the steel truss girders and deck steelwork continued through the summer and is now approximately 90 per cent complete.

Bridgewater Bridge

The total number of openings of the lift span for the year was 770. Of these 572 were for newsprint barges and 198 for other vessels. The figures represent a decrease of 14 per cent over 1977-78. Maintenance carried out during the year included replacement of the four groups of six steel wire ropes supporting the counterweights and investigation work to determine a suitable method of repair to the approach span piers. Workshop fabrication of a system to provide remote hydraulic operation of the rail locking bars was also completed. The equipment will be installed during the coming year.

Lytton Street Pumping Station

This pumping station is required to deal with flows from the Launceston City Council's drainage system and the drainage from the Department's East Tamar Outlet Road in the area.

Major components of the scheme are a reinforced concrete underground pump house with two pumps and a 900 mm diameter rising main and outfall structure to the Tamar River. The work was virtually completed during 1978-79, with only a few relatively minor items still outstanding.

The Launceston City Council was responsible for design and construction, with costs being shared between the Department and the Council. Liaison was maintained with the Council, with their design and drawings being approved, construction inspected, and their expenditure claims checked.

The Department's share of the cost has been agreed at 50.8 per cent. To date the cost to the Department is approximately \$238 000 (including agreed extras) with only about \$2 500 outstanding for completion of work in 1979-80. Total overall cost is expected to be approximately \$460 000.

Historic Bridges

Ross Bridge

The task of structural restoration of Ross Bridge has now been completed. The final stages of the work included completion of masonry restoration on the southern face and the construction of a temporary cofferdam around the eastern pier. This enabled a detailed examination of the pier foundations to be made and the forming of a reinforced concrete sheath to the below-water section of the pier to reinstate and supplement the deteriorated stonework.

Richmond Bridge

A small-scale program which involved re-pointing of weathered joints and other minor repairs was undertaken during the year. As the bridge is in good structural condition, no additional work is planned at this stage apart from sealing of footpaths and treatment of moss and other growths.

Denison Canal Bridge

During the year there were 1 091 openings of the swing span to allow the passage of vessels compared with 868 openings in the previous year. This represents an increase of 26 per cent.

Maintenance carried out included the repainting of fences and footway plates and completion of a program to overhaul and upgrade the hydraulic system. Work was also put in hand to modify the auxiliary power unit in preparation for the installation of an improved system of signals to control road traffic on the bridge approaches.

Dover Slipways, No. 1 and 2

Approximately \$27 000 was expended on the completion of Dover Slipway No. 2 at Kents Beach adjacent to the local boat building works. This slipway is comprised of concrete and steel ways and steel carriages and will accommodate a 50 tonne vessel. Total cost of this work to date is approximately \$130 000. This slipway is now in operation.

Concurrently with work on No. 2 slipway, new carriages were provided for Dover Slipway No. 1 and supplementary work was carried out to upgrade this slipway to accommodate a 100 tonne vessel at a total cost of some \$45 000.

Road Maintenance

The increased funds being made available for maintenance are enabling the Department to improve the quality of running surfaces and roadsides but the gap between needs and resources to meet the needs will continue until all roads have been brought up to acceptable standards. The sub-standard quality of the roads is illustrated by the poor condition of those being used by log trucks around the State. Further extension of the area maintenance system during the year has resulted in the whole State now being covered, although some depots and facilities require upgrading.

Bituminous Surfacing

Funds for resealing fall far short of requirements with the result that many sealed surfaces are required to serve beyond a reasonable life. Sealing, resealing and asphalt surfacing on classified roads is shown in Annexure C.

Investigations and Materials Testing

The Materials and Research Section continued to provide testing and consulting services for the design, construction and maintenance functions of the Department and also provided services to other departments and authorities. Its work included soil surveys for route selection, testing materials for design of road pavements, design of asphalt mixes, compliance and control testing of construction materials, field investigations of construction and maintenance problems and assessment of new products.

Projects of particular interest undertaken during the year included monitoring of vibrations caused by construction activities near the Guard House at Spring Hill, checking blasting patterns to avoid vibration damage to Lemon Hills Inn and designing an asphalt mix incorporating tyre-rubber granules for use in an experimental application on Esk Main Road.

Landscaping

Approximately 15 000 plants and trees, grown in the Department's nursery, were used in landscaping new works or existing roads. The main resources were directed to the East Tamar Outlet at Launceston and the Ulverstone and Kempton By-passes.

Jetties and Wharves

Smithton Wharf

Approximately \$26 500 was expended during 1978-79 on the progressive reconstruction of Smithton Wharf by Departmental labour. To date the cost of this work is approximately \$78 500. Reconstruction is planned to be completed during 1979-80 at a further cost of approximately \$20 000.

Naracoopa Jetty

A special item of \$35 000 was provided for general repairs to this jetty. A study commenced in 1978-79 to investigate the feasibility of reducing the size of this 220 metre long jetty, or of dispensing with it, is continuing and at present the proposal is being reviewed by the Transport Commission.

CONSTRUCTION PLANT AND WORKSHOPS

General

The Plant Division, which incorporates the three workshops at Moonah, Launceston and Ulverstone, provides plant and workshop facilities for the Department's construction and maintenance operations on roads, bridges and other works.

Plant hire rates remained unaltered during the year, excepting those applicable to light motor vehicles. Workshop loaded rates were increased by approximately 11 per cent in May. As the increases occurred after the close of the Division's financial year, they are not reflected in the financial statements in this report.

The recently completed extension to the amenities building at Moonah has greatly enhanced the usefulness of this facility, particularly in respect to training seminars.

Plant Operations

Plant usage was generally similar to that of the previous year. The income from plant hire of \$6 597 020 amounted to an increase of 7·6 per cent over 1977-78.

Total expenditure on new plant amounted to \$1 709 000 consisting of \$1 295 600 for replacements and \$413 400 on additional plant.

The total number of drivers and plant operators was 215, a slight increase over the previous year.

The trend to replace small tip trucks with a lesser number of larger tandem axle units has continued.

Workshops

With a total turnover for the year of \$4 477 750, an increase of 8 per cent over the previous year, the three workshops realised a profit of \$200 700.

Steel fabrication work undertaken during the year included framing for demountable classrooms, stairway balustrading and the construction of truck bodies and water sprayer units.

Projects undertaken by the building trades included the remodelling of the Alonnah School toilet facilities, renovation of Triabunna Slipway, extensions to the Kingston plant nursery and the construction of a number of portable dental clinic units.

The Moonah sign writing workshop produced reflectorised road signs valued at \$125 000.

Financial Statements

The Plant Division operates with a March to March financial year. The Division trading account is the Road Construction Plant Suspense Account which must be kept as required by section 6 of the Roads and Jetties Act 1935.

The Road Construction Plant Suspense Account financial statements for the period 26 March 1978 to 24 March 1979 are reported in Annexure D.

The statement of income and expenditure reveals a profit of \$668 379, a drop of 15 per cent from the previous year. An amount of \$300 000 from this profit has been transferred to the Plant Replacement Reserve.

Apprentices

Thirteen apprentices completed their indentures at the end of 1978 and three were retained in the Department's workforce.

Nineteen new apprentices commenced training in January 1979. They bring the total number of apprentices employed in the Department's workshops to sixty-nine. The numbers of apprentices at each of the workshops are as follows—

[illegible]

ADMINISTRATION

General

As foreshadowed in last year's report, a progressive review of staff and administrative functions had been almost completed by 30 June 1979. The results have pointed to some rearrangement of duties between officers and some reduction in staff numbers.

The Branch's Internal Audit Section continued its task of assisting other sections in identifying and rectifying deficiencies in management and accounting practices within the Department.

Staff

At 30 June 1979, there were 423 positions on the Department's establishment and the actual number of staff employed was 399.

The composition of this staff was—

Administrative officers, accountants and clerical officers	108
Engineers	79
Surveyors and survey staff	33
Scientific officers, technical officers, engineering assistants and technicians	77
Draftsmen	48
Keyboard classifications	30
Other classifications	24
TOTAL	399

The distribution of staff to the various locations of the Department was as follows: —

Head Office, Murray Street, Hobart	224
South-East District Office, Derwent Park	22
North-East District Office, Launceston	41
North-West District Office, Ulverstone	38
Materials Laboratory, Derwent Park	28
Central Workshops and Stores, Moonah	46
TOTAL	399

During the year Mr D. L. Burrige was promoted to the position of Chief Draftsman, Roads.

Four officers retired during the year, all with long periods of service—

Mr W. J. Harrison, Executive Officer — 43 years service.

Mr A. R. Thompson, Chief Draftsman, Roads — 43 years service.

Mr T. A. Jillett, Bridge Construction Engineer — 28 years service.

Mr E. E. Etherington, Clerical Assistant/Driver — 34 years service.

Property Acquisitions

During 1978-79 a total of 262 new acquisitions were commenced and at the end of the financial year 353 acquisitions were in progress, of which twenty-four were subject to compulsory process. Expenditure on property acquisitions for the year was \$755 289 compared with \$796 379 for the preceding year.

Major areas of expenditure were in Launceston for properties affected by the East Tamar Outlet, the Mowbray Connector and the Alanvale Connector and in Ulverstone for properties for the Ulverstone By-pass. Other important areas of expenditure were for the reconstruction of the Midland Highway, Hobart Eastern Outlet Road and the Bass Highway between Deloraine and Latrobe.

The reconstruction of the Blessington Main Road, Huon Highway, Nubeena Secondary Road and the Waratah Highway resulted in many minor acquisitions of property.

Over the years the Department has acquired a number of residential or commercial properties in advance of requirements because of hardship experienced by some property owners following the announcement of road proposals. Eighty-six such properties are leased to tenants.

Vacant land acquired in advance is also leased until required for road purposes and at present sixty-seven parcels of land are under lease.

Consideration has been given to an extension of the compulsory process applied to acquisition, particularly for the purpose of providing for equality of treatment between property owners where several adjacent properties are being acquired.

The compulsory process is generally misunderstood and its principal effect is to fix a date on which compensation is assessed and prevents property owners from extending negotiations over some years and thereby obtaining the advantage of inflation in property prices.

Study Courses and Staff Development

The Department has continued its policy of providing scholarships which provide a living allowance and meet fees in respect of the study of engineering and surveying at the University of Tasmania. There are currently three scholarship holders in the engineering faculty and one in surveying.

At 30 June 1979 there were twenty-seven officers of the Department receiving time off to attend as part-time students at tertiary institutions studying subjects related to their employment with the Department.

During the year twenty-one staff development courses were held, covering technical, professional and administrative staff of the Department. In addition, selected officers attended external training courses, seminars and meetings arranged by organisations in both the public and private sectors.

Stores

The construction and plant stores requirements of the Department are managed through a decentralised stores system, with the principal store at the main workshop complex at Moonah and major branch stores at the District Offices in Launceston and Ulverstone.

Because of the substantial costs of holding stocks of plant and construction stores, careful control is exercised over the purchasing and holding policies to ensure that stocks are kept at the minimal level necessary to ensure minimum downtime for plant under repair at the workshops.

A good deal of reliance is placed on local and contract suppliers for spare parts and staff resources are directed to the location of reliable suppliers and following up orders to expedite delivery. This policy is assisted by a system of holding many basic automotive spare parts on consignment from suppliers. As such consignments can eventually be returned to the supplier at no cost, stores redundancy is reduced accordingly.

The total value of all stores issued during the year from the three main stores was approximately \$1 730 000. At 30 June 1979 the value of stores holdings was slightly in excess of \$700 000, an increase of \$7 000 on the holdings at 30 June 1978.

Industrial

As in the previous year wage increases received were mainly the result of National Wage Case decisions.

The Departmental relationship with unions was very good, with very small amounts of time lost during the year due to industrial action.

At 30 June 1979 the numbers of employees engaged in workshops and field operations were—

Workshops and depots	....	....	....	....	....	292
Road and bridge construction and maintenance						963
TOTAL	....	....	....	....	....	1 255

The continued rise in the costs of workers' compensation is of major concern to the Department and considerable effort is directed towards improving industrial safety. As indicated in the section on Industrial Safety, lost time accidents were reduced from 232 to 216 for the period under review, but the cost of workers' compensation rose substantially to a total cost for the year of \$292 000. The Department can only have a direct influence on the workplace and not all accidents were directly related to employment, e.g. several motor accidents occurred with employees going to or from work and these have involved substantial expenditure on workers' compensation.

The Department's new policy of medical examination before appointments to the workforce has now been satisfactorily in operation for over twelve months and is having the effect of ensuring the selection of a more appropriate type of employee to the Department's workforce. The value of the new policy cannot be fully assessed for a period of at least five years.

Industrial Safety

Accident prevention programs were continued in the Departmental workshops and in field operations in all Districts. The programs consisted principally of lectures and on-site training in all areas and courses were conducted in first aid and scaffolding.

The Department, as part of its overall accident prevention program, has made it mandatory for all employees to wear high visibility jackets where their duties require them to work on pavements under traffic conditions. This also has had the effect of improving the general safety of employees, and certainly assists motorists passing through zones under construction or repair.

With regard to the Department's overall safety performance, an improvement was noted, with the number of accidents being lowered from 232 to 216 for 1978-79. The frequency rate, that is the number of lost time injuries related to a million man hour unit, fell from sixty-eight to sixty-six.

Rehabilitation

The Department's Rehabilitation Committee considered the cases of twenty-six employees who, through sickness or injury, had become disabled and needed either long term medical treatment or rehabilitation by placement in alternative employment within the Department.

Thirty per cent of these cases related to back problems, which again is a reflection of the high average age of employees.

Of the twenty-six cases, seven have been rehabilitated to their normal duties and a further seven allocated to alternative employment within the Department.

ACKNOWLEDGMENT

I express my appreciation to the staff and employees of the Department for the manner in which they have responded to all demands placed upon them during the year.

On behalf of the Department I extend thanks to all the State and Commonwealth Departments and Local Government bodies which have co-operated with or provided assistance to the Department during the year.

27 November 1979.

G. E. C. McKERCHER, Director of Main Roads

Annexure A
LOAN FUND EXPENDITURE 1978-79

1977-78 \$		1978-79 \$
	<i>Roads and Bridges —</i>	
350 000	Bridge renewals generally	250 000
1 200 000	Eastern Outlet Road	1 200 000
200 000	Northern Outlet Road .....	.....
500 000	Tasman Highway, Scottsdale to Ringarooma Turnoff	500 000
500 000	Huon Highway, Huonville to Geeveston	500 000
500 000	Strahan-Zeehan Road	550 000
300 000	Illawarra Main Road, Deviation at Longford	500 000
300 000	West Tamar Highway .....	.....
.....	East Tamar Outlet	1 200 000
270 000	Refund to Consolidated Revenue for Administration	329 000
4 120 000	TOTAL (Roads and Bridges)	5 029 000
	<i>Other Works —</i>	
63 427	Launceston Flood Protection	78 144
199 982	Jetties and Facilities for Fishermen	106 477
263 409	TOTAL (Other Works)	184 621
4 383 409	TOTAL (All Works)	5 213 621

Annexure B
FINANCIAL ASSISTANCE TO LOCAL GOVERNMENT AUTHORITIES

1977-78 \$		1978-79 \$
	<i>Direct Grants —</i>	
189 300	Rural Arterial Roads — Construction	55 500
1 772 507	Rural Local Roads — Construction	2 208 067
1 556 257	Maintenance	1 566 475
180 900	Urban Arterial Roads — Construction	281 053
.....	Maintenance	23 500
1 074 638	Urban Local Roads — Construction	1 099 400
167 586	Maintenance	82 050
140 489	Minor Improvements for Traffic Engineering and Road Safety	176 100
5 081 677	TOTAL	5 492 145
	<i>Work on Council Roads Financed and Carried out by D.M.R. —</i>	
1 097 652	Repair and Renewal of Bridges	1 286 626
162 320	Roadworks	164 392
6 341 649	TOTAL	6 943 163

Annexure C

BITUMINOUS SURFACING COMPLETED 1978-79 (km)

Road	Sprayed Seals			
	Prime and Seal	Reseal	Asphalt	Total
<i>South-East District—</i>				
Arthur Highway	....	1.20	....	1.20
Channel Highway	4.05	2.43	0.30	6.78
East Derwent Highway	0.20	....	0.04	0.24
Eastern Outlet	....	....	0.80	0.80
Huon Highway	0.23	2.62	....	2.85
Lake Highway	0.98	21.57	....	22.55
Lyell Highway	....	1.00	....	1.00
Midland Highway	3.10	5.60	0.45	9.15
Northern Outlet	....	....	0.65	0.65
Tasman Highway	1.40	6.07	....	7.47
Elderslie Main Road	7.35	....	....	7.35
Kingston Main Road	....	....	0.67	0.67
Lollara Main Road	....	3.57	....	3.57
Nicholls Rivulet Main Road	....	4.59	....	4.59
Rokeby Main Road	....	4.55	....	4.55
Tunnack Main Road	....	15.22	....	15.22
Arve Secondary Road	....	....	0.14	0.14
Grass Tree Hill Secondary Road	2.66	....	....	2.66
Nubeena Secondary Road	1.30	....	....	1.30
Ranelagh Secondary Road	....	2.88	....	2.88
<i>North-West District—</i>				
Bass Highway	3.80	22.80	5.30	31.90
Waratah Highway	9.30	3.00	....	12.30
King Island Main Road	1.30	5.70	....	7.00
Preston Main Road	4.60	....	....	4.60
Railton Main Road	1.80	3.60	....	5.40
Ridgley Main Road	....	16.30	....	16.30
Sheffield Main Road	....	10.50	....	10.50
Mt Hicks Secondary Road	0.70	....	....	0.70
Olivers Tourist Road	....	7.60	....	7.60
Paloona Dam Tourist Road	....	1.30	....	1.30
Corinna Developmental Road	1.00	4.90	....	5.90
<i>North-East District—</i>				
Bass Highway	....	0.30	4.80	5.10
East Tamar Highway	4.10	....	1.30	5.40
East Tamar Outlet	1.20	....	0.30	1.50
Midland Highway	....	....	4.30	4.30
Tasman Highway	4.83	26.60	2.20	33.63
Blessington Main Road	0.80	....	....	0.80
Esk Main Road	....	28.60	6.05	34.65
Illawarra Main Road	....	2.90	....	2.90
Kelso Main Road	....	5.50	....	5.50
Lake Leake Main Road	1.58	....	....	1.58
Lilydale Main Road	3.20	....	....	3.20
Pipers River Secondary Road	....	1.00	....	1.00
Storeys Creek Secondary Road	2.90	....	....	2.90
Batman Developmental Road	....	....	4.10	4.10
Poatina Developmental Road	0.60	....	....	0.60
Mowbray Connector	0.30	....	0.10	0.40
Total	63.28	211.90	31.50	306.68

Annexure D

ROAD CONSTRUCTION PLANT SUSPENSE ACCOUNT 1978-79

INCOME AND EXPENDITURE STATEMENT

Period Ending 25-3-78 \$		Period Ending 24-3-79 \$
	<i>Income—</i>	
	<i>Earnings—</i>	
6 133 099	Plant Hire	6 597 020
4 138 603	Workshop Charges	4 477 750
6 875	Other Income	11 331
210 881	Net Profit on Sale of Plant and Stores and Stocktaking Adjustments	213 296
10 489 458	Total	11 299 397
	<i>Expenditure—</i>	
4 422 774	Plant Operation and Maintenance	4 827 845
3 807 516	Workshop Operations	4 261 806
350 956	Plant Depot Administration and Maintenance	410 841
1 083 003	Provision for Depreciation of Plant Equipment and Buildings	1 116 654
34 757	Net Loss on Sale and Write-off of Plant Stores and Stocktaking Adjustments	13 872
9 699 006		10 631 018
790 452	Excess of Income over Expenditure for Period	668 379
10 489 458	Total	11 299 397

ROAD CONSTRUCTION PLANT SUSPENSE ACCOUNT 1978-79

BALANCE SHEET AS AT 24 MARCH 1979

1978 \$		1979 \$
	NATURE AND SOURCE OF FUNDS USED—	
	<i>Funds provided by State Treasurer—</i>	
194 607	Valuation of Plant and Equipment held at 30 June 1945 and Stock on Hand held at 30 June 1946	194 607
3 065 200	Loan Funds	3 140 730
6 769	Commonwealth Grant	6 769
309 434	State Highways Trust Fund	309 434
1 725 000	General Reserve for Increased Cost of Plant Replacement	2 025 000
1 627 977	Accumulation Account	1 978 812
	<i>Current Liabilities—</i>	
97 738	Sundry Creditors (Store)	76 388
424 481	Accrued Expenses	319 954
	<i>Provisions—</i>	
15 122	Motor Vehicle Insurance	8 730
5 756	Plant Accident Insurance	5 606
7 472 084		8 066 030
	THESE FUNDS ARE REPRESENTED BY—	
	<i>Current Assets—</i>	
631 595	Cash at Treasury	593 521
323 885	Stock on Hand	291 772
78 789	Work in Progress — Deferred Charges	118 457
515 839	Accrued Charges — Plant Hire	425 609
57 804	Stores Issues	53 219
265 540	Workshops	325 692
2 744	Apprentice Tool Kits	4 503
1 876 196		1 812 773
	<i>Fixed Assets—</i>	
11 634 529	Land, Buildings, Plant and Equipment at cost	12 814 130
(6 038 641)	Less Provision for Depreciation	(6 560 873)
7 472 084		8 066 030

STATEMENT OF SOURCE AND APPLICATION OF FUNDS

1978 \$		1979 \$
	<i>Source of Funds—</i>	
790 453	Profit from Operations	668 379
1 083 003	Add Non-Cash Item Depreciation	1 116 655
1 873 456		1 785 034
205 869	Less Profit on Sale of Plant Less Costs	198 593
1 667 587		1 586 441
382 972	Proceeds from Sale of Plant	335 241
55 100	Proceeds from Loan Funds	75 530
2 105 659		1 997 212
	<i>Application of Funds—</i>	
367 833	Increase in Working Capital	62 454
308	Decrease in Provision for Plant Accident Insurance	6 392
2 361	Decrease in Provision for Motor Vehicle Insurance	150
48 089	Improvements to Depots	91 371
55 100	Additions to Amenities Building, Moonah	75 530
351 294	Purchase of New Plant	413 396
1 251 047	Purchase of Replacement Plant	1 295 634
29 627	Purchase of Workshop Equipment and Tools	52 285
2 105 659		1 997 212